Module 7: Effect of Agile on Post-Contract Award

TLO: Given a DoD program involved in software development using Agile philosophy, the student will identify key post-contract award activities program analysis and oversight in an Agile environment

ELOs

1. Recognize the change in documentation delivery in an Agile environment.
2. Identify changes to the role of government agencies/oversight in programs using Agile.
3. Recognize the level of involvement required of stakeholders for Agile to be effective.
4. Recognize the applicability of EVM in an Agile environment.
5. Identify how progress is measured in an Agile environment.

Assessment

LP - Be careful what you ask for when receiving and reviewing CDRLs as multiple Levels of abstraction will exist in same package (ELO 1)

MT - Government oversight may require tailoring for an Agile environment (ELO 2)

LP - Stakeholder involvement increases in an Agile environment due to the rapid cycle of incremental planning, development, and review (ELO 3)

MT - Government’s role in product management (and incremental acceptance of the product) is critical to success (ELO 3)

LP - Agile enables situational awareness across stakeholders and provide the ability to accurately measure and forecast performance (ELO 4,5)

MT - Stakeholders should be aware of the impacts of technical debt and the migration of work in an Agile environment (ELO 4,5)

MT - Objective technical completion criteria are essential for evaluating progress and performance regardless of the level at which the measurement occurs (ELO 5)

Module Story

What story do we want to tell as motivation and to support terminal learning objective

Module Contents

1. Documentation (ELO 1)
2. Regulatory oversight (ELO 2)
3. IBR (ELO 2)
4. Participating in Agile reviews (ELO 3) note – add something about people who cross multiple projects agile/not
5. Performance Measurement (ELO 4, 5)

Subtopic 1: Documentation

- Understanding the cadence of documentation development may increase in an Agile program
  - Incremental delivery of documentation
    - Just enough for a particular iteration
  - Delivered documentation will focus on how the system was actually built
- Example (MITRE guide), Navy guide??
- Index of Major Takeaways
  - CDRLs – be careful what you ask for when receiving and reviewing. Mult. Levels of abstraction will exist in same package

Subtopic 2: Regulatory oversight

- Understanding the role of government agencies/oversight in Agile programs.
  - Direction of DCMA, PARCA, AT&L, services etc., Test, Business Systems
  - Service Acquisition Executives
- All these organizations have efforts focused on agile
  - Describe various efforts
  - Links to efforts
- Mindful tailoring (Kendall presentation, 2015 DOD 5000)?
- Index of Major Takeaways
  - Government oversight may require tailoring for an Agile environment.

Subtopic 3: IBR (Integrated Baseline Review)

- A capability-based WBS is frequently used (example-SuZ)
- The stakeholders for Agile go way beyond the immediate pgrm
  - Cyber, EVM, Finance, OT, deployment, etc
- Be aware of best practices in execution of control accounts
  - Too much detail can burden the program

- Index of Major Takeaways
  1. Government oversight requires modification in an Agile environment.

Subtopic 4: Participating in Agile reviews

- Understanding the level of involvement required for Agile processes to be effective.
  - Portfolio Management/Road-mapping
  - Incremental planning
  - Incremental reviews
- Dealing with a mix of traditional and Agile programs
  - Recognize pressure on stakeholders crossing over between traditional and Agile programs
- Index of Major Takeaways
  - Stakeholder involvement increases in an Agile IPM environment due to the rapid cycle of incremental planning, development, and review.
  - Government's role in product management (and incremental acceptance of the product) is critical to success

Subtopic 5: Progress Measurement

- Understanding the tools used to provide program insight in an Agile program.
  - Team Level Measure
    - Team productivity should not be used against the team
    - Do not compare one team against another
    - Identify various measures and how they are used
      - Velocity
      - others
  - Program Level Measure
    - EV Analyst (Agile platinum card) (contractor EVM tool)
    - Cumulative flow diagram (lean engineering world) – lifecycle, time, bottlenecks, state transitions
    - % of user story point completion (aggregate across teams)
- Measuring work migration from one increment to another
- Understanding Technical Debt
  - Summarize
    - Intentional (strategic & tactical), Unintentional
  - Managing technical debt
    - The good and the bad
    - Effects on Velocity
- Index of Major Takeaways
  - Agile enables situational awareness across stakeholders and provide the ability to accurately measure and forecast performance.
  - Objective technical completion criteria are essential for evaluating progress and performance regardless of the level at which the measurement occurs.
  - Stakeholders should be aware of the impacts of technical debt and the migration of work in an Agile environment.